

Exhibit 2

U.S. Patent No. 9,130,900 V. IBM Corporation

1. Claim Chart

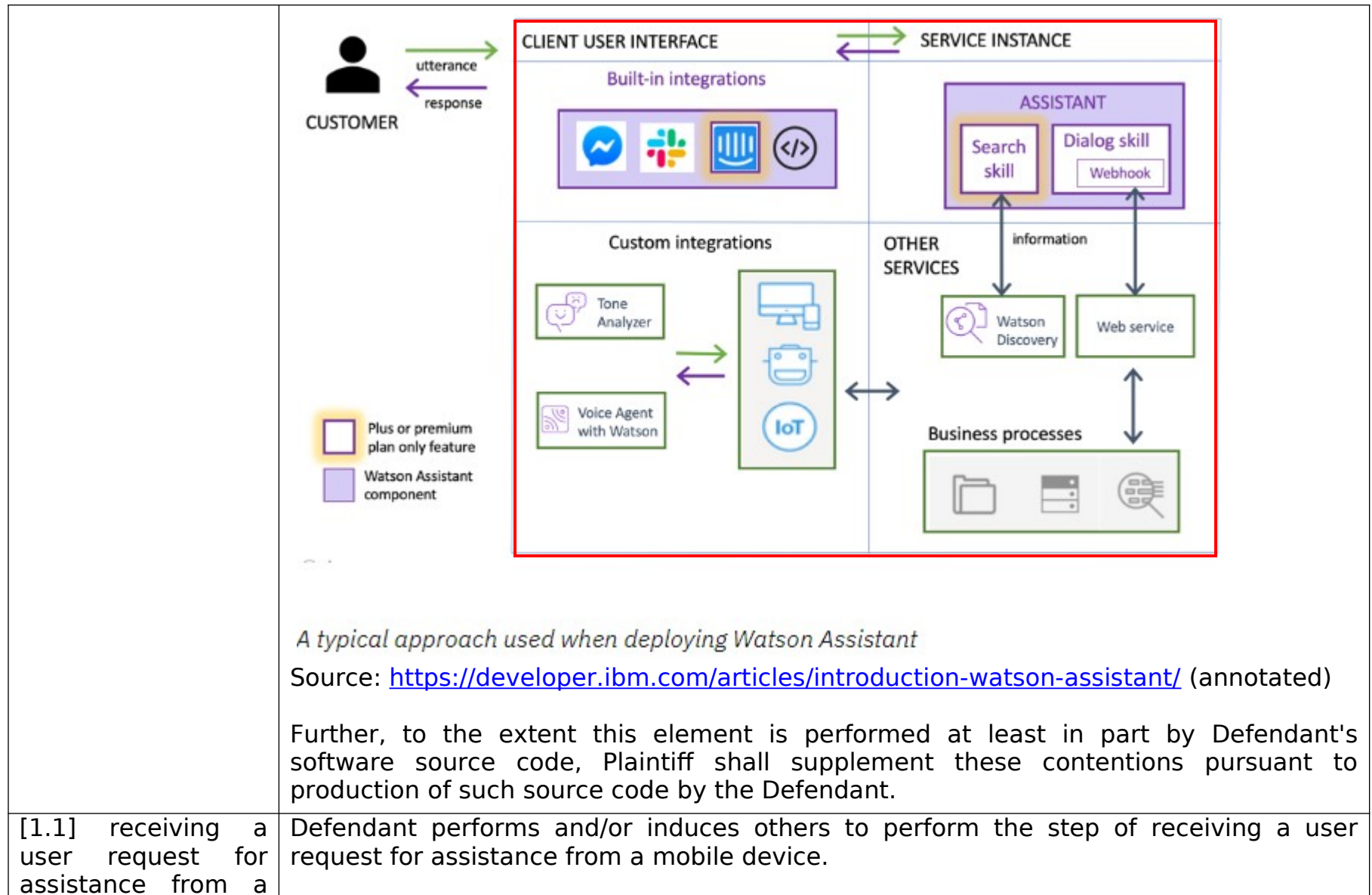
Claim	Analysis
<p>[1.P] A method for providing assistance to a user, comprising:</p>	<p>IBM ("Defendant") performs and/or induces others to perform a method for providing assistance to a user.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Defendant provides Watson Assistant which is a virtual agent that provides automated responses to a user by processing user requests received through a mobile device. Watson Assistant receives inputs from the users through Web chat codes, third-party applications, Voice Assistants in smartphones, and/or custom applications and software in which Watson Assistant is integrated.</p> <div style="border: 1px solid red; padding: 5px;"> <p>IBM Watson Assistant is an AI-powered virtual agent that provides customers with fast, consistent, and accurate answers across any messaging platform, application, device, or channel. Using AI and natural language processing, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches, and unhelpful chatbots.</p> </div> <p>Source: https://developer.ibm.com/articles/introduction-watson-assistant/</p>

Architecture

The following figure shows Watson Assistant architecture that's common for all implementations. In this architecture:

- Users interact with the assistant through one or more of these integration points:
 - A web chat code snippet that runs in your existing website
 - A virtual assistant that you publish directly to an existing third-party messaging platform, such as WhatsApp with Twilio, Slack, or Facebook Messenger
 - A voice assistant that the user accesses over the phone
 - A custom application that you develop, such as a mobile app or a robot with a voice interface

Source: <https://developer.ibm.com/articles/introduction-watson-assistant/>




mobile device;	<p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant receives user requests in the form of voice commands (through a voice assistant) to provide automated responses. For example, Watson Assistant receives a voice command “Can I make a reservation at Texas RoadHouse at 7 PM?” as a user request.</p> <ul style="list-style-type: none">• Users interact with the assistant through one or more of these integration points:• A web chat code snippet that runs in your existing website• A virtual assistant that you publish directly to an existing third-party messaging platform, such as WhatsApp with Twilio, Slack, or Facebook Messenger• A voice assistant that the user accesses over the phone• A custom application that you develop, such as a mobile app or a robot with a voice interface <p>Source: https://developer.ibm.com/articles/introduction-watson-assistant/</p>
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With Watson Assistant, you can build conversational interfaces into any application, device, or channel. Most virtual assistants try to mimic human interactions, but Watson Assistant knows when to search for an answer from a knowledge base, when to ask for clarity, and when to direct someone to a human. Like a human personal assistant, the assistant you build helps your customers perform tasks and answer questions. To accomplish this, you define actions for the assistant.

An action represents a discrete outcome that you want your assistant to be able to accomplish in response to a user's request. An action comprises the interaction between a customer and the assistant about a particular question or request. This interaction begins with the user input that starts the action (for example, I want to withdraw money). It might then include additional exchanges as the assistant gathers more information, and it ends when the assistant carries out the request or answers the customer's question.

Source: <https://developer.ibm.com/articles/introduction-watson-assistant/>

	 <p>"Can I make a reservation at Texas RoadHouse at 7 PM?"</p> <p>Source: https://vimeo.com/191573147, at 0:10</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
<p>[1.2] determining semantics of the user request and identifying at least one domain, at</p>	<p>Defendant performs and/or induces others to perform the step of determining semantics of the user request and identifying at least one domain, at least one task, and at least one parameter for the user request by parsing the user request to identify representations of meaning or interpretation of the user request along with location and user personal information captured by the mobile device including telephone,</p>

<p>least one task, and at least one parameter for the user request by parsing the user request to identify representations of meaning or interpretation of the user request along with location and user personal information captured by the mobile device including telephone, texting, and user activity;</p>	<p>texting, and user activity.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant uses Natural Language Understanding (NLU) and Natural Language Processing (NLP) to parse and determine the semantics of the voice command received from the user and deduce the meaningful interpretations of the voice command (“identify representations of meaning or interpretation of the user request”). For example, the voice command “Can I make a reservation at Texas RoadHouse at 7 PM?” is parsed to identify the meaning of words such as “make a reservation”, “Texas RoadHouse” and “7 PM”. At least, ‘making a reservation’ is identified as at least one task, ‘Texas RoadHouse’ is identified as at least one domain and ‘7 PM’ is identified as at least one parameter.</p> <p>Further, Watson Assistant collects information such as location, telephone, texting, and customer conversation (“user activity”) to learn from the data.</p>
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"Can I make a reservation at Texas RoadHouse at 7 PM?"

Source: <https://vimeo.com/191573147>, at 0:10

Clear and consistent language

IBM Watson Assistant is built on natural-language understanding (NLU), natural-language processing (NLP), machine learning (ML), and integrates a large language model (LLM)—all to better understand questions, automate the search for the best answers, and complete the user's intended action.

Source: <https://www.ibm.com/products/watson-assistant>

IBM Watson Assistant is an AI-powered virtual agent that provides customers with fast, consistent, and accurate answers across any messaging platform, application, device, or channel. Using AI and natural language processing, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches, and unhelpful chatbots.

Source: <https://developer.ibm.com/articles/introduction-watson-assistant/>

These partners recognize that Watson Assistant can be embedded in any “thing” – a car, hotel room, retail store, conference room and more – offering consumers new levels of convenience as they live, work and travel. It combines a deep understanding of the user with additional contextual factors such as their location and time of day to anticipate their needs and proactively make recommendations.

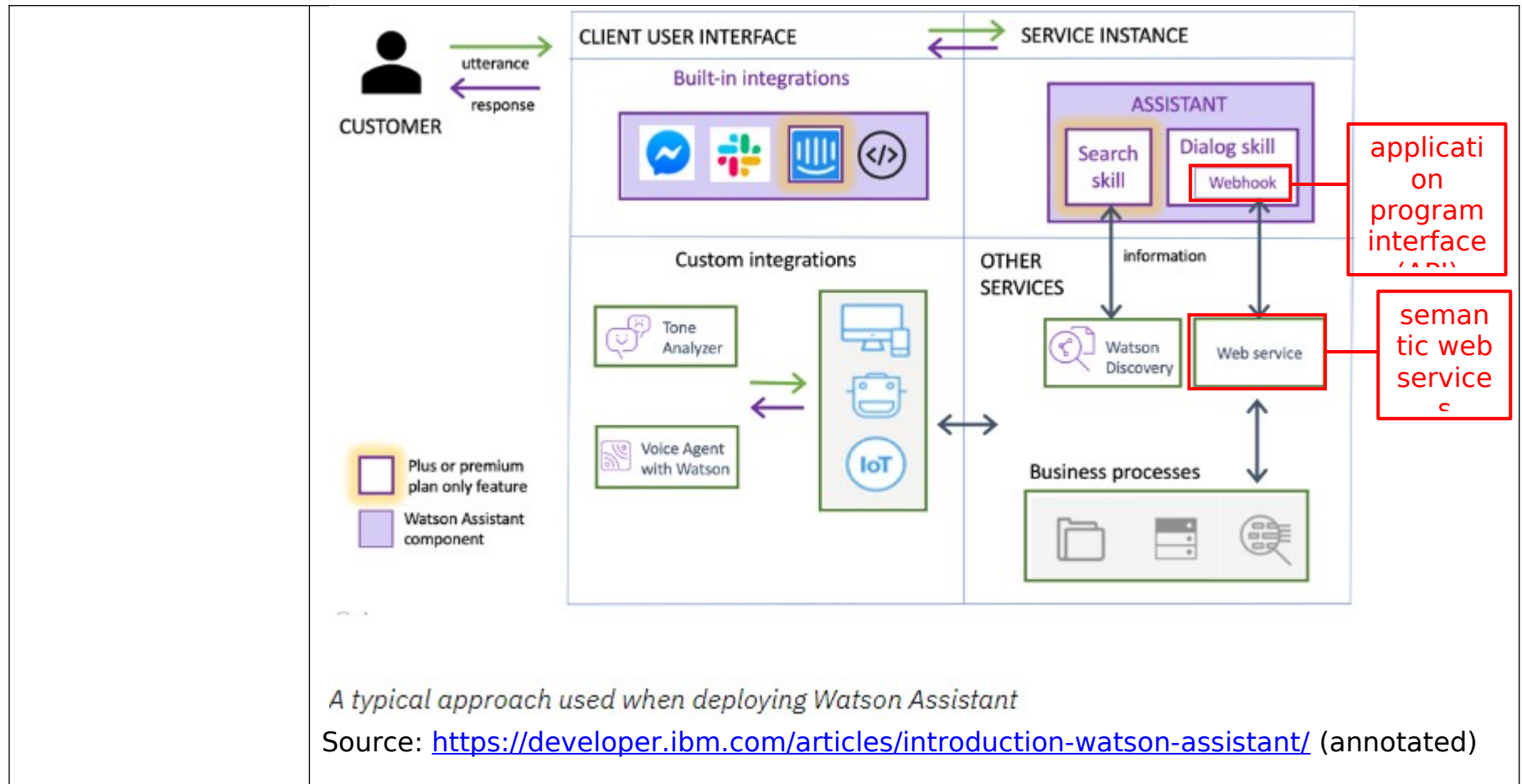
Source: <https://www.ibm.com/blogs/think/2018/03/watson-assistant/>

Data sharing between skills and built-in data objects, such as context (information about the business and industry) and profile (data on the consumer/customer), as well as built-in proactive capabilities, enables natural and life-like conversations that are in-context while protecting data through secure and personalized insights, which the business owns. These skills can be built upon and use any Watson Service—primarily Watson Assistant, Speech to Text and Text to Speech—to create a much more comprehensive conversation.

Source: <https://www.ibm.com/blogs/think/2018/03/watson-assistant/>

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.

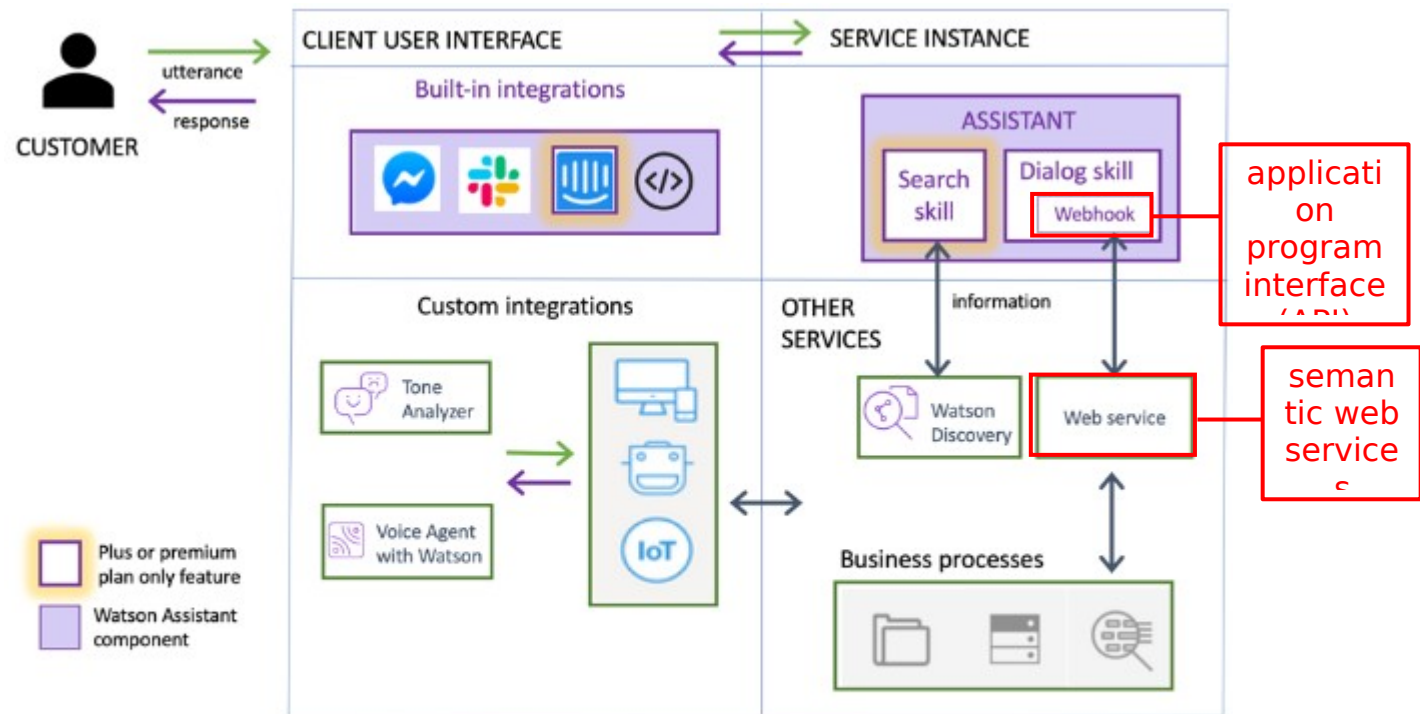
<p>[1.3] accessing one or more semantic web services, each service accessed through an application program interface (API) to retrieve data matching the at least one domain, at least one task, and at least one parameter;</p>	<p>Defendant performs and/or induces others to perform the step of accessing one or more semantic web services, each service accessed through an application program interface (API) to retrieve data matching the at least one domain, at least one task, and at least one parameter.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant accesses a web service (“semantic web services”) through webhook (“application interface program (API)”) to collect the data for providing response to the user’s command. For example, when the voice command “Can I make a reservation at Texas RoadHouse at 7 PM?” is received, Watson Assistant accesses one of the web services through webhook to place a call to the restaurant or book a table at the restaurant for the user.</p>
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	<h2 style="text-align: center;">What is a webhook?</h2> <p>A webhook can be thought of as a type of API that is driven by events rather than requests. Instead of one application making a request to another to receive a response, a webhook is a service that allows one program to send data to another as soon as a particular event takes place. Webhooks are sometimes referred to as “reverse APIs,” because communication is initiated by the application sending the data rather than the one receiving it. With web services becoming increasingly interconnected, webhooks are seeing more action as a lightweight solution for enabling real-time notifications and data updates without the need to develop a full-scale API.</p> <p>Source: https://www.mparticle.com/blog/apis-vs-webhooks/</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
<p>[1.4] identifying, generating, or providing personalized recommendations for activities, products, services,</p>	<p>Defendant performs and/or induces others to perform the step of identifying, generating, or providing personalized recommendations for activities, products, services.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant learns from customer conversations to resolve issues (“personalized recommendations”) for the user.</p> <p>For example, Watson Assistant responds to the user’s command “Can I make a reservation at Texas RoadHouse at 7 PM?” by asking the number of people, receiving “3 people” as response from user and then proceeding to book a table for 3 people. In this way, Watson Assistant identifies, generates and provides a personalized recommendation for at least a service.</p>

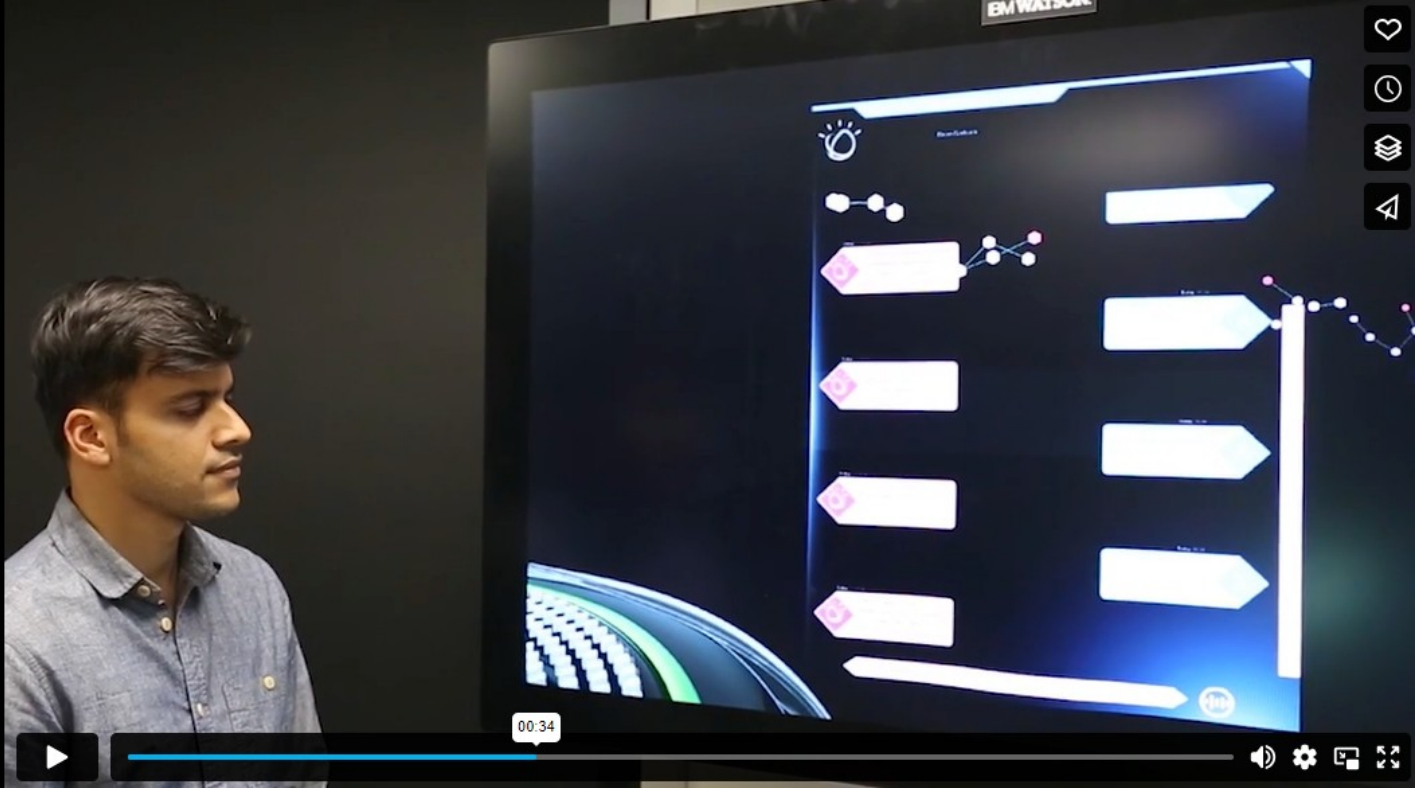
	<p>IBM Watson Assistant is an AI-powered virtual agent that provides customers with fast, consistent, and accurate answers across any messaging platform, application, device, or channel. Using AI and natural language processing, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches, and unhelpful chatbots.</p> <p>Source: https://developer.ibm.com/articles/introduction-watson-assistant/</p> <p>Watson has been designed to be able to read and understand large amounts of data, including text, images, and video. It can then provide a list of possible answers to a question, ranked in order of confidence.</p> <p>Source: https://www.aiforanyone.org/glossary/watson</p> <p>These partners recognize that Watson Assistant can be embedded in any “thing” – a car, hotel room, retail store, conference room and more – offering consumers new levels of convenience as they live, work and travel. It combines a deep understanding of the user with additional contextual factors such as their location and time of day to anticipate their needs and proactively make recommendations.</p> <p>Source: https://www.ibm.com/blogs/think/2018/03/watson-assistant/</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
[1.5] presenting possible responses to the user by interact with the	<p>Defendant performs and/or induces others to perform the step of presenting possible responses to the user by interact with the semantic web services by calling the services through the API and extracting one or more options or suggestions from the semantic web services through the API and confirming user responses by accessing a text</p>

<p>semantic web services by calling the services through the API and extracting one or more options or suggestions from the semantic web services through the API and confirming user responses by accessing a text messaging API or a phonebook API;</p>	<p>messaging API or a phonebook API.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant accesses the web service (“interact with semantic web services”) using Webhook (“API”) to provide a response to the user. The web service collects the relevant responses (“one or more options or suggestions”) and provides them to the Watson Assistant to present them further to the user.</p> <p>For example, when Watson Assistant receives the user command for making reservations at Texas RoadHouse at 7 PM, Watson Assistant confirms with the user whether the user would like to call the restaurant to confirm the reservation. In response to the user’s reply, Watson Assistant makes a call the Texas RoadHouse and confirms the reservation. It would be apparent to a person having ordinary skill in the art that Watson Assistant uses a phonebook API to make the call and confirm the reservation.</p> <p>IBM Watson Assistant is an AI-powered virtual agent that provides customers with fast, consistent, and accurate answers across any messaging platform, application, device, or channel. Using AI and natural language processing, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches, and unhelpful chatbots.</p> <p>Source: https://developer.ibm.com/articles/introduction-watson-assistant/</p> <p>Watson has been designed to be able to read and understand large amounts of data, including text, images, and video. It can then provide a list of possible answers to a question, ranked in order of confidence.</p> <p>Source: https://www.aiforanyone.org/glossary/watson</p>
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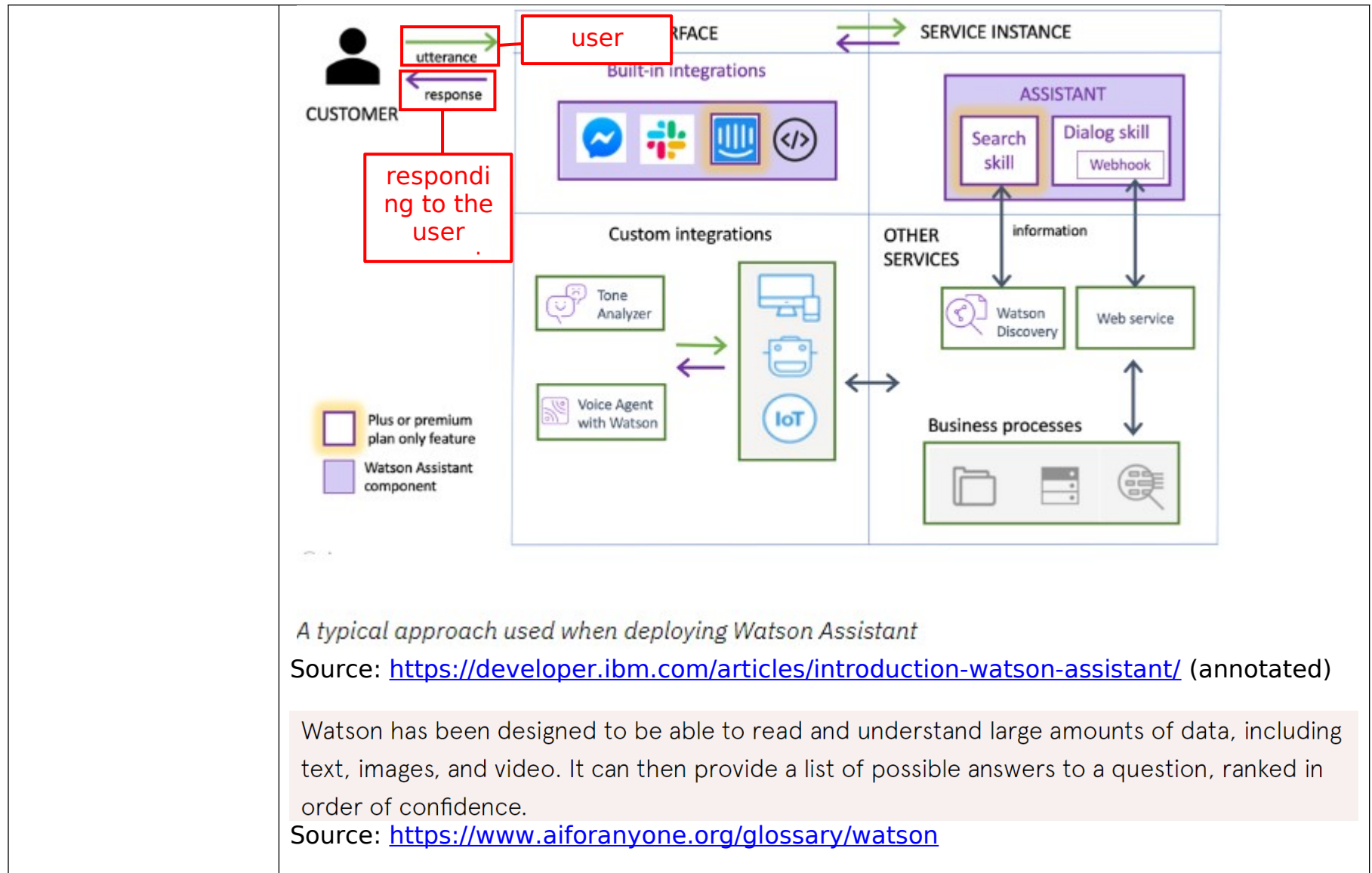


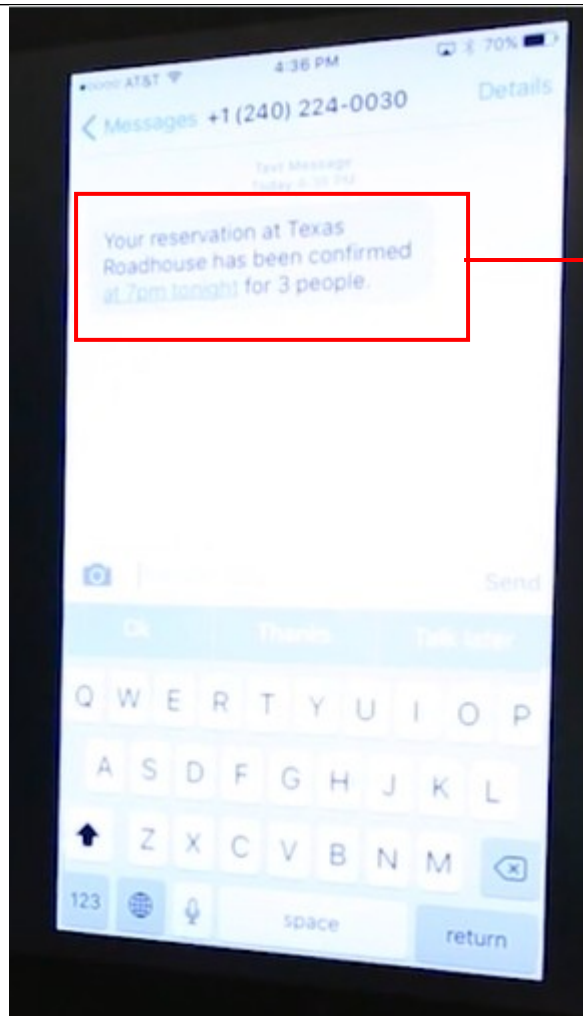
A typical approach used when deploying Watson Assistant

Source: <https://developer.ibm.com/articles/introduction-watson-assistant/> (annotated)

	 <p>"Would you like to call?" Source: https://vimeo.com/191573147, at 0:34 Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
<p>[1.6] determining at least one responsive answer; and</p>	<p>Defendant performs and/or induces others to perform the step of determining at least one responsive answer.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p>

	<p>For example, Watson Assistant determines a response such as confirmation of reservation to be provided to the user.</p> <p>IBM Watson Assistant is an AI-powered virtual agent that provides customers with fast, consistent, and accurate answers across any messaging platform, application, device, or channel. Using AI and natural language processing, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches, and unhelpful chatbots.</p> <p>Source: https://developer.ibm.com/articles/introduction-watson-assistant/</p> <p>Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.</p>
[1.7] responding to the user request.	<p>Defendant performs and/or induces others to perform the step of responding to the user request.</p> <p>This element is infringed literally, or in the alternative, under the doctrine of equivalents.</p> <p>For example, Watson Assistant provides the confirmation of reservation to the user by sending a text message ("responding to the user request") for the reservation confirmed at Texas RoadHouse.</p>





Text Message for

Source: <https://vimeo.com/191573147>, at 01:26

Further, to the extent this element is performed at least in part by Defendant's software source code, Plaintiff shall supplement these contentions pursuant to production of such source code by the Defendant.

2. List of References

1. <https://developer.ibm.com/articles/introduction-watson-assistant/>, last accessed on June 16, 2023.
2. <https://www.ibm.com/products/watson-assistant>, last accessed on June 16, 2023.
3. <https://dataplatform.cloud.ibm.com/docs/content/wsj/analyze-data/watson-nlp-returned-categories.html>, last accessed on June 16, 2023.
4. <https://zapier.com/blog/webhook-vs-api/>, last accessed on June 16, 2023.
5. <https://vimeo.com/191573147>, last accessed on June 16, 2023
6. <https://www.aiforanyone.org/glossary/watson>, last accessed on June 16, 2023
7. <https://www.ibm.com/blogs/think/2018/03/watson-assistant/>, last accessed on June 16, 2023.